

**IN THE CLAIMS:**

1. A peptide having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs

thereof.

3. A peptide having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C \* L A N F C;

- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

5. A peptide having the amino acid sequence A R L I (portion of SEQ ID NO: 2, residues 47-50), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

6. A peptide having the amino acid sequence H A R L (portion of SEQ ID NO: 2, residues 292-295), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

7. A peptide having the amino acid sequence F A R L (portion of SEQ ID NO: 2, residues 264-267), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

9. A peptide having the amino acid sequence A R L C (portion of SEQ ID NO: 2, residues 92-95), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

11. A nucleic acid encoding an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
  - (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
  - (m) A R C L; (SEQ ID NO: 12)

- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences.

13. A nucleic acid encoding an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C \* L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

20. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
  - (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
  - (m) A R C L; (SEQ ID NO: 12)

- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs

thereof.

21. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C \* L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

22. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L; and
- (e) A R L C, (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

23. A mimetic of a peptide having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)

- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

24. A mimetic of a peptide having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C \* L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

25. A mimetic of a peptide having an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and

(e) A R L C; (SEQ ID NO: 12)

wherein the NTP peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

26. A method for purifying NTP from a biological sample comprising:

(1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences;

- (2) isolating the resulting Harlil peptide/NTP conjugates; and
- (3) separating NTP from the one or more Harlil peptides to obtain purified NTP.

27. A method for purifying NTP from a biological sample comprising:

(1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;

- (b) L A R L C L A N F C G N N N V;
  - (c) C A R Y R T G H H A R L M;
  - (d) H H A R L P L A N F C G;
  - (e) R T G H H A R L C \* L A N F C;
  - (f) C E S A R Y R T G H H A R L C \*;
  - (g) D N T H H A R L I L;
  - (h) S H H A R L I L; and homologs thereof;
- (2) isolating the resulting Harlil peptide/NTP conjugates; and
  - (3) separating NTP from the one or more Harlil peptides to obtain purified NTP.
28. A method for purifying NTP from a biological sample comprising:
- (a) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
    - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
    - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
    - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
    - (iv) A R L; and
    - (v) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide;
  - (b) isolating the resulting Harlil peptide/NTP conjugates; and
  - (c) separating NTP from the one or more Harlil peptides to obtain purified NTP.
29. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:
- (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
    - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
    - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
    - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
    - (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
    - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
    - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
    - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
    - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
    - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)

- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences;

- (2) determining the amount of NTP present in the sample; and
- (3) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

30. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
  - (a) L H A R L C L A N F C G R N R V;
  - (b) L A R L C L A N F C G N N N V;
  - (c) C A R Y R T G H H A R L M;
  - (d) H H A R L P L A N F C G;
  - (e) R T G H H A R L C \* L A N F C;
  - (f) C E S A R Y R T G H H A R L C \*;
  - (g) D N T H H A R L I L;
  - (h) S H H A R L I L; and homologs thereof;
- (2) determining the amount of NTP present in the sample; and
- (3) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

31. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

(a) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:

- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (iv) A R L; and
- (v) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide;

(b) determining the amount of NTP present in the sample; and

(c) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

32. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

(1) one or more peptides having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
  - (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
  - (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)

- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences; and

- (2) suitable reagents.

33. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (1) one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
  - (a) L H A R L C L A N F C G R N R V;
  - (b) L A R L C L A N F C G N N N V;
  - (c) C A R Y R T G H H A R L M;
  - (d) H H A R L P L A N F C G;
  - (e) R T G H H A R L C \* L A N F C;
  - (f) C E S A R Y R T G H H A R L C \*;
  - (g) D N T H H A R L I L;
  - (h) S H H A R L I L; and homologs thereof; and
- (2) suitable reagents.

34. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (a) one or more peptides having an amino acid sequence selected from the group consisting of:
  - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
  - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
  - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
  - (iv) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
  - (v) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide; and

- (b) suitable reagents.

35. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

36. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C \* L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;

- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

37. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and
- (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

38. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)

(s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences.

39. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C \* L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

40. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and
- (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

41. A method of isolating immunoglobulins from a sample using a peptide comprising:

- (1) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/ peptide interaction; and
- (2) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)

- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

45. A method of isolating immunoglobulins from a sample using a peptide comprising:

- (1) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/peptide interaction; and
  - (2) isolating the resulting peptide/immunoglobulin conjugates,
- wherein the peptide has an amino acid sequence selected from the group

consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C \* L A N F C;
- (f) C E S A R Y R T G H H A R L C \*;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

49. A method of isolating immunoglobulins from a sample using a peptide comprising:
- (a) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/ peptide interaction; and
  - (b) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the group consisting of:
    - (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
    - (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
    - (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
    - (d) A R L ; and
    - (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.